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GB A 2168958	GB 1136127	FR A 1486483
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(58) Field of search
B8T
Selected US specifications from IPC sub-class B65D

(54) Container and closure

(57) A dispensing container assembly comprises an integrally formed container body forming the lower part 4 of the assembly, an integrally formed upper part 2 of the assembly including a nozzle 11, an open mouth 10 in the nozzle and a cap 6 hingedly connected to the upper part of the assembly, and means connecting the upper part of the assembly to the lower part so that the finished assembly is a unitary structure. The parts may be connected by welding.

The upper part 2 is integrally moulded in plastics; the lower part is a foil/film laminated squeezable tube.

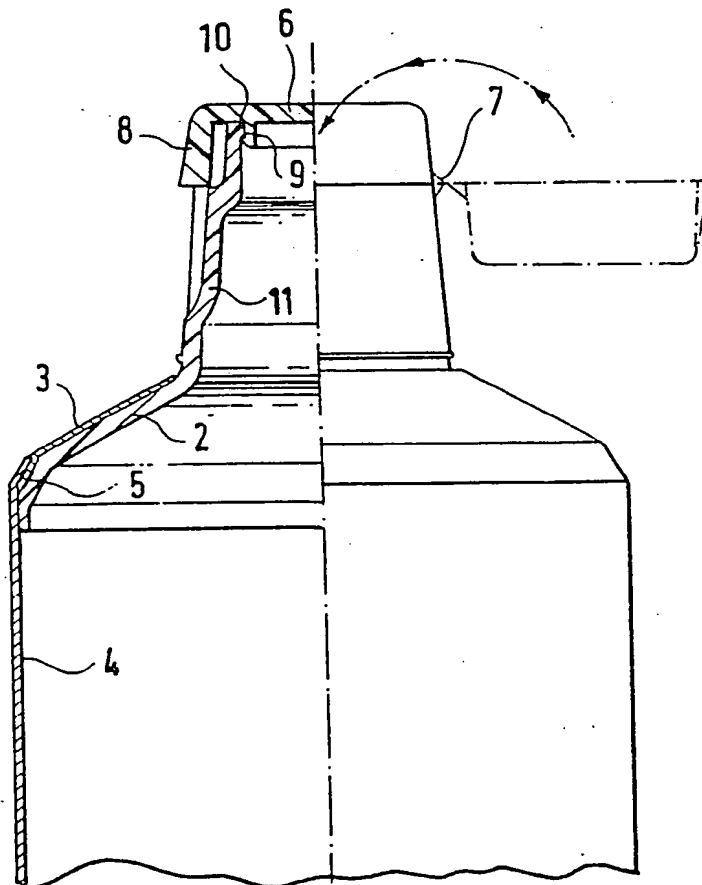


Fig.2.

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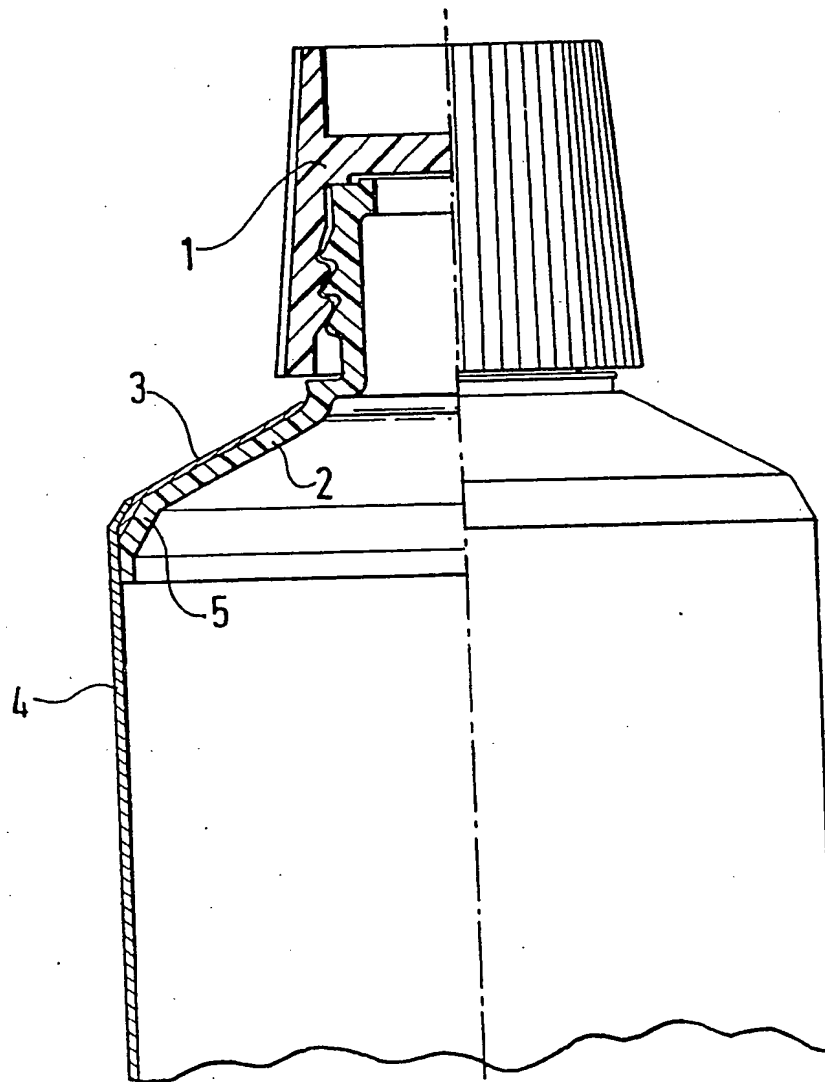
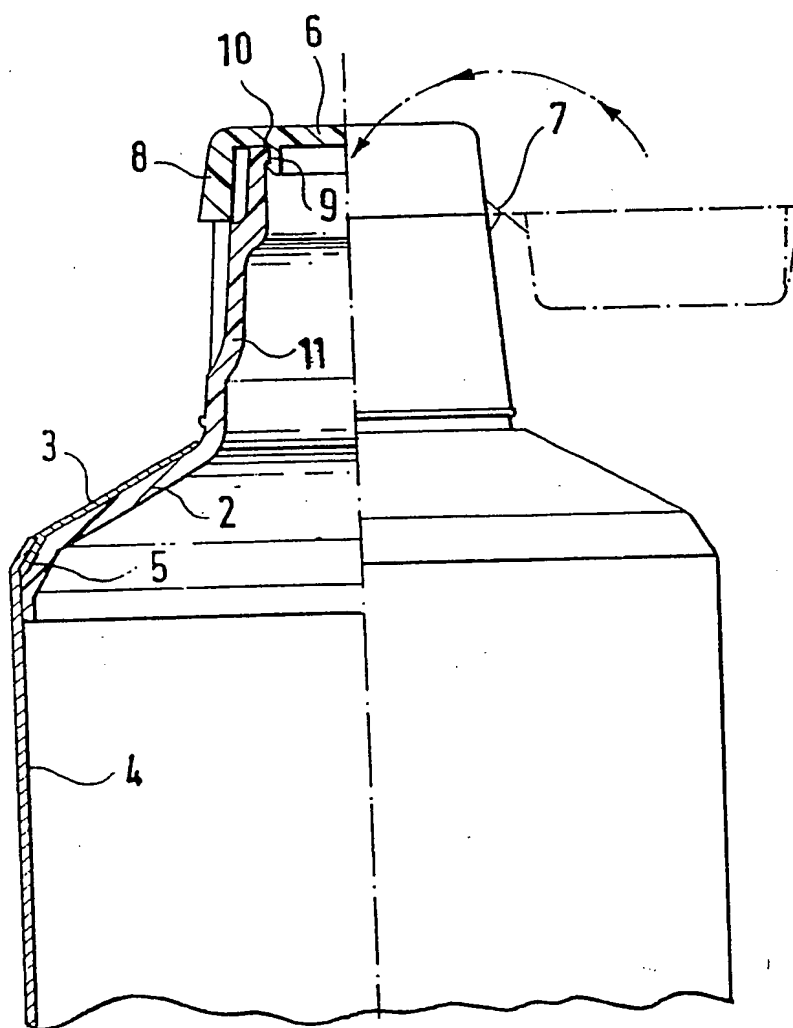
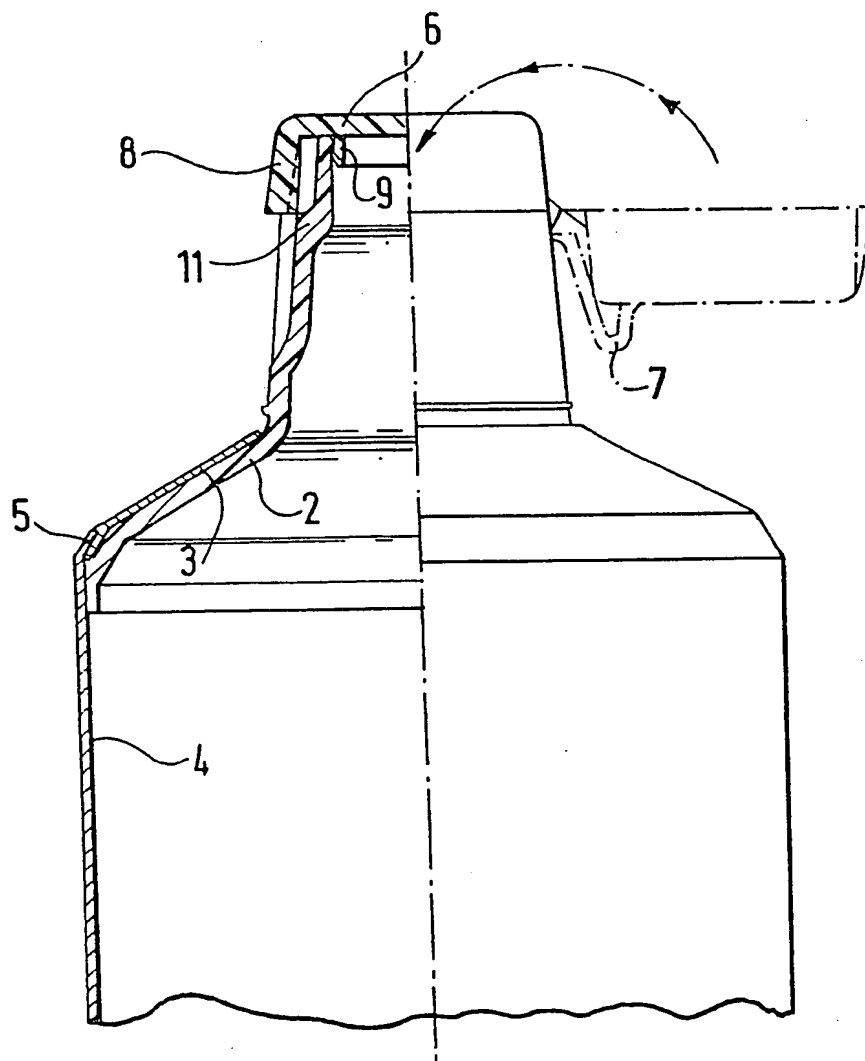


Fig. 1.

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*Fig. 2.*

*Fig. 3.*

SPECIFICATION

Squeeze tube with integral hinged cap

5 This invention is concerned with the provision of a container adapted to dispense a cream, paste or paste-like product hereinafter simply called paste. As an example, tooth paste is often supplied in a squeezable tube, manipulation of which expels a desired quantity of paste through the mouth of the tube which conventionally is closed, when the tube is not in use, by a simple screw on/screw off cap.

10 The provision of a squeezable tube filled with paste and provided with a screw cap is a cheap and effective method of dispensing the paste product but the use of a cap separate from the tube introduces the problem that it is easy to drop the cap. Then it is often not so easy to find the cap and, when it is found, the cap may be dusty. One known form of tube assembly comprises a foil/film laminated tubular body connected to a shoulder member provided with a screw neck and connected to the body by a foil/film laminated collar, the assembly being completed by a screw cap which, when in position, closes the mouth of the tube. One example of such a known form of tube is shown in Fig. 1 in which 1 is a screw cap applied after tube fabrication but before filling with the paste, 2 is the shoulder with a screw neck 3 is the foil/film laminated collar and 4 is the foil/film laminated and fabricated body which is welded to the collar and on to the shoulder at 5. That type of tube assembly is satisfactory but the assembly does suffer from the disadvantages mentioned above, ie. the cap is not connected to the tube assembly but must be screwed in place before filling with the product. In order to make it possible to use a hinged cap it has always been assumed that the cap would have to be moulded or otherwise formed as a separate unit which would then have to be assembled with the tube body using a similar screw thread or snap-on connection or any other appropriate method of attachment. Such an arrangement might have been satisfactory in use but it has always been ruled out on the ground of cost due to the need for a separate moulding which would cost more than a screw cap and for the extra assembly operation still required.

15 It is the main object of this invention to provide a relatively inexpensive and effective assembly including a hinged i.e. a captive cap.

20 According to one aspect of the present invention we provide a container assembly adapted to dispense paste and comprising a container body with a dispensing opening and a cap to close the opening characterised in that the container body includes an upper shoulder member which includes the dispensing opening and that the cap is formed integrally with the shoulder member and is connected thereto by a hinge member. The invention also includes the provision of a shoulder member, with an integrally formed cap hinged thereto, for connection to a lower body part of a container to form a dispensing assembly. In order that the invention may be more clearly understood reference is now directed to Fig. 2 of the accompanying drawings which shows, by way of example only, a dispensing assembly including a cap with a hinge formed integrally with a shoulder member.

25 Using the same references as in Fig. 1 we can say that the assembly has a shoulder member 2, a foil/film laminated collar 3 and a foil/film laminated tubular body 4 which is welded or otherwise secured to the collar 3 and on to the shoulder member 2 at 5. Formed integrally with the shoulder member 2 is a cap 6 which is connected to the nozzle portion 11 of the shoulder member 2 by a hinge 7. As shown the cap 6 has a depending outer skirt 8 and a depending inner plug 9 to seal the open mouth 10 of the nozzle portion 11.

30 The shoulder member 2 is preferably moulded as an integral unit which includes the nozzle portion 11, an open mouth 10, the cap 6 and the hinge 7 connecting the cap 6 to the nozzle. The hinged cap 6 integral with the shoulder member is already snapped shut, before assembly with the foil/film laminated collar and tubular body which can then be filled with paste through the open bottom of the container, after which the bottom is sealed in the normal way. Essentially, therefore, we have provided a dispensing container comprising a body to hold a supply of paste and a shoulder member formed separately and connected to the top of the body and shaped to define a nozzle and an open mouth at the top of the nozzle, the shoulder member being formed integrally with a cap adapted to close the mouth of the container and being connected to the nozzle of the shoulder member by a hinge.

35 In Fig. 2 a snap-on type cap is illustrated but it will be understood that any suitable form of hinged cap may be used e.g. a push on or push in cap, the essential requirement being that the cap is formed integrally with the shoulder member.

40 A dispensing container in accordance with the invention is very useful as a container for tooth paste and may also be used for many other pastes including food, medicaments, toiletries, as well as industrial greases and so on.

45 In the above description we have referred by way of example to a tubular container and to the use of a foil/film body and collar but it will be understood that any suitable type and/or shape of squeezable container and/or collar can be used. In addition instead of using a collar any other suitable way of connecting the shoulder to the body may be used. We

prefer to mould the shoulder with integral cap from a suitable plastics material.

Another embodiment with a snap type hinge is shown by way of example in Fig. 3.

5

CLAIMS

1. A dispensing container assembly comprising (a) an integrally formed container body forming the lower part of the assembly, (b) an
10 integrally formed upper part of the assembly including a nozzle, an open mouth in the nozzle and a cap hingedly connected to the upper part of the assembly and (c) means connecting the upper part of the assembly to the
15 lower part so that the finished assembly is a unitary structure.

2. A container assembly according to claim 1 wherein the lower part of the assembly is an integrally moulded squeezable tube and the
20 connecting means is a foil/film laminated collar.

3. A container assembly adapted to dispense paste and comprising a container body with a dispensing opening and a cap to close
25 the opening characterised in that the container body includes an upper shoulder member which includes the dispensing opening and that the cap is formed integrally with the shoulder member and is connected thereto by
30 a hinge member.

4. A shoulder member for a container wherein the shoulder member has an integrally formed cap hinged thereto, for connection to a lower body part of a container to form a
35 dispensing assembly.

5. A container assembly according to claim 3 wherein the assembly has a foil/film laminated collar (3) and a foil/film laminated tubular body (4) welded or otherwise secured to
40 the collar (3) and on to the shoulder member (2).

6. A shoulder member according to claim 4 moulded as an integral unit which includes a nozzle portion (11), an open mouth (10) and
45 the hinge (7) connecting the cap (6) to the nozzle.

7. A dispensing container comprising a body to hold a supply of paste and a shoulder member formed separately and connected to
50 the top of the body and shaped to define a nozzle and an open mouth at the top of the nozzle, the shoulder member being formed integrally with a cap adapted to close the mouth of the container and being connected
55 to the nozzle of the shoulder member by a hinge.